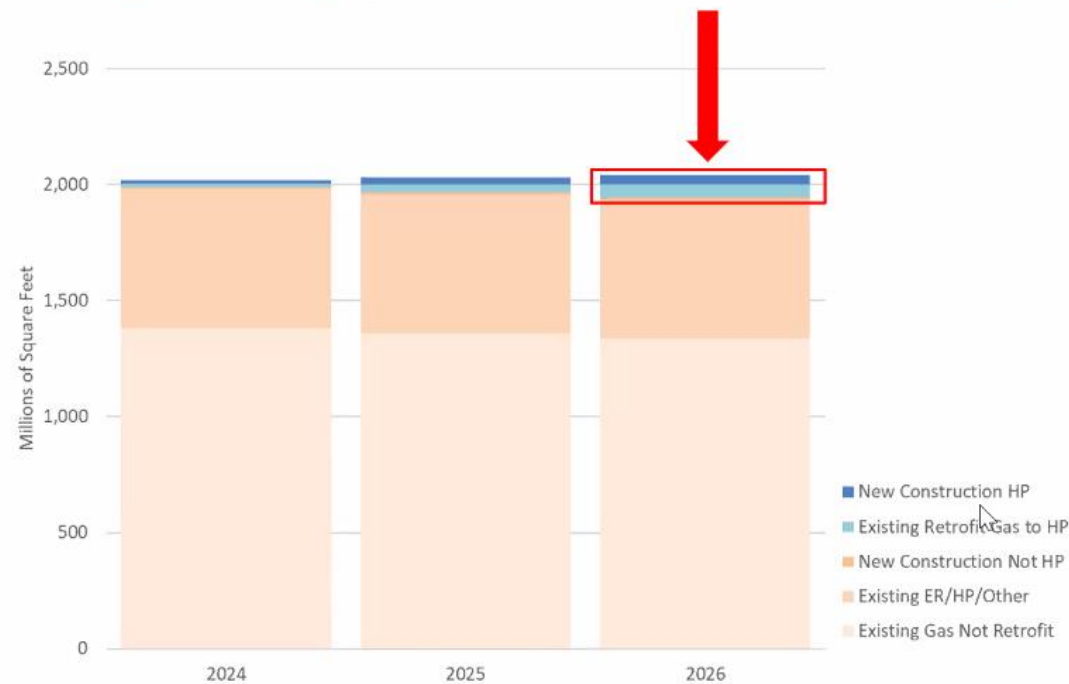


# WA State Floor Area Impacted by Space Heating Proposal

The total impacted building stock is roughly estimated at ~2 - 5% for the 2021 code cycle



Source: NWPCC floor area data

Key Assumptions: 30% existing ER/HP/Other, 50 – 75% new construction HP, 3- 5% annual retrofit rate, 10 - 25% retrofit from gas to HP

# NWPCC estimated impact of electrification load growth

Full electrification (**residential + commercial**) leads to modest 1.7% increase in peak by 2030

	Peak Loads MW	Peak Loads MW	Peak Loads MW	Peak Loads MW	Peak Loads MW	Peak Loads MW
Fuel Switching/conversions	2022	2030	2035	2040	2045	2050
Baseline	36,525	49,493	49,950	46,705	43,112	54,862
Baseboard heating would be converted to heat pump upon replacement	36,522	49,490	49,939	46,692	43,063	54,851
Requiring HP in place of zonal heating at end of life	36,493	48,947	49,077	45,793	42,446	53,368
All other forms of heating fuel use is shifted to electricity upon natural replacement	36,530	49,429	49,756	46,331	48,048	53,792
Water heating will be shifted to electric and heat pump	36,535	49,559	50,076	46,844	43,338	54,953
Residential Cooking fuel will shift from fossil fuel to Electric.	36,541	50,097	51,112	48,404	45,313	57,564
Moving all non-electric demands (wood, oil, natural gas, propane) to electric at end of equipment life in both residential and commercial sectors.	36,603	50,312	51,288	50,880	59,374	56,760

1.7% increase in peak over  
baseline by 2030  
3.5% increase in peak over  
baseline by 2050

	Energy aMW	Energy aMW	Energy aMW	Energy aMW	Energy aMW	Energy aMW
Fuel Switching/conversions	2022	2030	2035	2040	2045	2050
Baseline	22,095	21,883	23,045	23,345	24,135	25,506
Baseboard heating would be converted to heat pump upon replacement	22,078	21,749	22,779	23,008	23,704	25,069
Requiring HP in place of zonal heating at end of life	22,100	21,910	23,104	23,454	24,328	25,700
All other forms of heating fuel use is shifted to electricity upon natural replacement	22,140	22,596	24,377	25,121	26,424	28,046
Water heating will be shifted to electric and heat pump	22,122	22,131	23,512	23,946	24,911	26,339
Residential Cooking fuel will shift from fossil fuel to Electric.	22,106	22,373	24,005	24,764	25,989	27,803
Moving all non-electric demands (wood, oil, natural gas, propane) to electric at end of equipment life in both residential and commercial sectors.	22,424	24,670	27,533	28,946	30,817	32,685

13% increase in energy over  
baseline by 2030  
28% increase in energy over  
baseline by 2050

Source: NWPCC Supplemental to May 18, 2021 DFAC webinar